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EXAMINER	
BROOME, SAID A	
ART UNIT	PAPER NUMBER
2628	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/28/2006	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/512,058	NOMURA ET AL.	
	Examiner	Art Unit	
	Said Broome	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,7,10-21,23-26 and 33-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,10-21,23-26 and 33-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/14/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Preliminary Amendment

1. Claims 5, 8, 9, 22 and 27-32 have been cancelled by the applicant in a preliminary amendment.

2. Claims 1-4, 6, 7, 10-21, 23-26 and 33-36 are original.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Applicant is advised that should claims 10-11 be found allowable, claims 18-19 and 25-26 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. Applicant is also advised that should claims 12 and 13 be found allowable, claims 16 and 17 respectively will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 33 recites a sub code area for recording associated information, however the definition of the "associated information" is unclear.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20, 21, 23-26 and 33-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 20, 21, 23-26 and 33-36, the claims recite an image data recording medium, however the claims recite nonfunctional descriptive material on the computer readable medium, therefore the claims are not statutory. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, does not make it statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 12, 20 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Swift (US Patent 6,765,568).

Regarding claim 1, Swift describes an image data generation apparatus in column 5 lines 21-23 and is illustrated in Figure 2 as element 102. Swift describes receiving a parameter for displaying three-dimensional image data in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file..."). Swift also describes three-dimensional image display control information generation means for generating three-dimensional image display control information by encoding said parameter in column 4 lines 6-11 ("The encoding processes used include independent compression of the Left and Right images. Independent compression of Left and Right provides better quality display output...methods include a video setup format for compression...Several tools are used in the process. These include...a stereo compression analysis tool to detect if the stereo information is preserved after compression.") and in column 11 lines 12-16 ("If too much compression is applied, the image will loose its stereoscopic impact. This embodiment provides a measure of the quality of the stereoscopic image that can be used to readjust the compression system."), where it is described that a parameter, or stereo information, that provides information regarding how to correctly display and align the stereoscopic images is encoded. Swift describes file generation means for generating a multimedia information file including both of said three-dimensional image display control

information, as described in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file...", and as shown in Figure 1) and said three-dimensional image data in column 8 lines 11-20 ("An embodiment supports a stereoscopic media file that contains sub-media. Specifically, a file structure is created to store and preserve various types of stereo media...This one file format can store multiple or single stereo/non-stereo media elements. FIG. 10 illustrates a VRR file 1000 that may contain...a Stereo Still Image 1004...Stereoscopic Object Model..."), where it is described that the stereoscopic media file also contains three-dimensional image data such as stereoscopic three-dimensional models.

Regarding claim 2, Swift describes a recording means for recording the multimedia file in column 7 lines 51-54 ("The viewing system takes a Stereoscopic Media File, displays it on the user side according to the user's display preferences, and saves a local copy in whatever display format the user selects.").

Regarding claim 3, Swift describes the file generation means outputs said multimedia information file to an external communication path in column 7 lines 49-54 ("There is an embodiment that saves and converts one format into another from the Internet using a local drive from original source. The viewing system takes a Stereoscopic Media File, displays it on the user side according to the user's display preferences, and saves a local copy in whatever display format the user selects.").

Regarding claim 12, Swift describes an image data reproduction apparatus in column 5 lines 21-23, and as shown in Figure 2 as element 102. Swift also describes receiving a multimedia information file including both of three-dimensional image

display control information in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file...", and as shown in Figure 1) and said three-dimensional image data in column 8 lines 11-20 ("An embodiment supports a stereoscopic media file that contains sub-media. Specifically, a file structure is created to store and preserve various types of stereo media...This one file format can store multiple or single stereo/non-stereo media elements. FIG. 10 illustrates a VRR file 1000 that may contain...a Stereo Still Image 1004...Stereoscopic Object Model..."), where it is described that the stereoscopic media file also contains three-dimensional image data, obtained by encoding a parameter for displaying three-dimensional image data and said three-dimensional image data, or two-dimensional image data in column 4 lines 6-11 ("The encoding processes used include independent compression of the Left and Right images. Independent compression of Left and Right provides better quality display output...methods include a video setup format for compression...Several tools are used in the process. These include...a stereo compression analysis tool to detect if the stereo information is preserved after compression.") and in column 11 lines 12-16 ("If too much compression is applied, the image will loose its stereoscopic impact. This embodiment provides a measure of the quality of the stereoscopic image that can be used to readjust the compression system."). Swift describes a file structure analysis means for analyzing a structure of said multimedia information file, such as the file format, so as to extract the three-dimensional image display control information and the three-dimensional image data in column 3 lines 24-50 ("...a single media file format that is converted to various display

formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file..."), where it is described that the file format is analyzed to determine the associated display format. Swift also describes three-dimensional image display control information analysis means for analyzing said three-dimensional image display control information and data reproduction means for reproducing said three-dimensional image data in column 3 lines 24-50 ("...it provides a single format with independent right and left channels...to represent the stereoscopic media...it provides automatic and manual optimization adjustments such as parallax shift adjustment, brightness control, color adjustment, and cross-talk reduction to the stereoscopic media..."), where it is described that the file format is analyzed to determine the display control data. Swift describes a data conversion means for converting said reproduced three-dimensional image data where the data conversion means converts said reproduced three-dimensional image data for data for display based on a result of analysis by the three-dimensional image display control information analysis in column 3 lines 24-26 ("...a single media file format that is converted to various display formats on the user side...") and in column 8 lines 45-63 ("Another embodiment allows for automatic detection of 3D display hardware. Many 3D stereoscopic hardware vendors install software that can be detected so that an appropriate display method can be automatically selected...Another embodiment automatically (or manually if desired) adjusts with overall left and right image shift...When a 3D stereoscopic image is enlarged and displayed on a viewing system that has a larger image size then the target system, there is a potential of creating large separations between objects in the 3D stereoscopic image that can lead to eyestrain for the viewer. The present invention stores important

parameters about the 3D stereoscopic image like width, height, target screen size, etc. When the 3D stereoscopic image is to be displayed on a display that is larger or smaller than the target screen size, then the 3D stereoscopic image is adjusted accordingly to minimize eye fatigue for the user."), where it is described that based on the display device, the file format of the display control information is analyzed and is converted to the proper display control file format required to accurately display the three-dimensional data, thereby correctly reproducing the 3D media on the display.

Regarding claim 20, Swift describes an image data recording medium recording a multimedia information file in column 7 lines 51-54 ("The viewing system takes a Stereoscopic Media File, displays it on the user side according to the user's display preferences, and saves a local copy in whatever display format the user selects.") including both of three-dimensional image display control information generated by encoding a parameter for displaying three-dimensional image data, in column 4 lines 6-11.

Regarding claim 33, Swift describes a multimedia information file including three-dimensional image display control information in column 3 lines 24-26 and 47-50, generated by encoding a parameter for displaying three-dimensional image data in column 4 lines 6-11 ("The encoding processes used include independent compression of the Left and Right images. Independent compression of Left and Right provides better quality display output...methods include a video setup format for compression...Several tools are used in the process. These include...a stereo compression analysis tool to detect if the stereo information is preserved after compression.") and said three-dimensional image data in column 11 lines 12-16 ("If too much compression is applied, the image will

loose its stereoscopic impact. This embodiment provides a measure of the quality of the stereoscopic image that can be used to readjust the compression system."). Swift also describes a recording area for recording three-dimensional image data in column 2 lines 21-25 ("This invention presents new stereoscopic media delivery system that includes means for...storing stereoscopic media...") as shown in Figure 1 as element 12, an audio recording area for recording audio data in column 8 lines 10-23 ("...a file structure is created to store and preserve various types of stereo media in various formats. Additionally, this file format can also store monoscopic media, as well as audio or other data."), and a sub code area for recording associated information, which has been interpreted to be any information or data associated with data stored in the file such as video or audio, as described in column 8 lines 10-23 ("A stereo media file format may contain certain sub media...An embodiment supports a stereoscopic media file that contains sub-media...this file format can also store monoscopic media, as well as audio or other data. This one file format can store multiple or single stereo/non-stereo media elements. FIG. 10 illustrates a VRR file 1000 that may contain a script 1002, a Stereo Still Image 1004, a Stereoscopic Animation/movie 1006, Stereoscopic Object Model 1008, a Thumbnail 1010, and Audio 1012.").

Regarding claim 34, Swift illustrates recording at least a portion of said three-dimensional image display control information in the image recording area in Figure 1, where it is shown a portion of the display control information(14, 16, 18, 20, 22, 24, 26) is recorded in the media file(12).

Regarding claim 35, Swift teaches recording at least a portion of said three-dimensional image display control information in the audio recording area in column 8

lines 10-23 ("A stereo media file format may contain certain sub media...An embodiment supports a stereoscopic media file that contains sub-media...this file format can also store monoscopic media, as well as audio or other data."), where it is described that any media data within the stereo file, as illustrated in Figure 1 as element 12, may be stored with the audio therefore the audio file may contain video or display control information.

Regarding claim 36, Swift teaches recording at least a portion of said three-dimensional image display control information in the sub code area in column 8 lines 10-23 ("A stereo media file format may contain certain sub media...An embodiment supports a stereoscopic media file that contains sub-media...this file format can also store monoscopic media, as well as audio or other data. This one file format can store multiple or single stereo/non-stereo media elements. FIG. 10 illustrates a VRR file 1000 that may contain a script 1002, a Stereo Still Image 1004, a Stereoscopic Animation/movie 1006, Stereoscopic Object Model 1008, a Thumbnail 1010, and Audio 1012."), where it is described that any media data may be stored with the sub media, therefore the sub media file may contain video or display control information.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 7, 14-16, 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Swift in view of Osaka et al.(herein "Osaka", US Patent 6,023,277).

Regarding claims 6 and 23, Swift teaches providing a particular file format in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file..."), however Swift fails to teach providing a different extension for the file indicating whether three-dimensional image data is contained within the file. Osaka teaches a file generation means provides a different extension to said multimedia information file between when said multimedia information file contains the three-dimensional image data and when said multimedia information file contains no three-dimensional image data in column 5 lines 4-11 ("...to provide a display control apparatus and a display control method in which paint information indicating whether a three-dimensional display is possible or not is provided in the header of a file..."). It would have been obvious to one of ordinary skill in the art to combine the teachings of Swift with Osaka because this combination would provide the ability to display stereoscopic images stored in a particular display format on any display device, as taught by Swift, in which the display control processing is reduced through the indication of the presence of three-dimensional data within the file, as taught by Osaka, thereby quickly identifying and distinguishing whether two or three-dimensional display control is required during display.

Regarding claims 7 and 24, Swift fails to teach the limitations. Osaka teaches that the extension adapts to the plurality of different three-dimensional display methods and is different for each of said plurality of three-dimensional display methods in column 17 lines 26-41 ("In this example, whether or not a three-dimensional image is to be displayed has been recorded as information in the header 51 and therefore the decision of

step S64 is rendered promptly by making reference to this information...these processing operations may be executed by a file extension...If it is determined at step S64 that this window has a three-dimensional image file...the display driver 6 is controlled to present the three-dimensional display...on the basis of the three-dimensional image data obtained from the three-dimensional image data 52, the screen controller 9 controls the image painting unit 7 and the checkered mask-pattern painting unit 8 and causes a three-dimensional display to be presented at the position of the window of the stereoscopic display 12."). The motivation to combine the teachings of Swift with Osaka is equivalent to the motivation of claim 6.

Regarding claims 14 and 15, Swift providing a particular file format that indicates 3D media in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file..."), however Swift fails to teach analyzing a structure of the multimedia information file to determine whether three-dimensional image data is contained within the file. Osaka teaches a file type determination means for analyzing a structure of said multimedia information file so as to determine whether three-dimensional image display control information is included where the file type determination means determines whether said multimedia information file includes the three-dimensional image in column 17 lines 26-41 ("In this example, whether or not a three-dimensional image is to be displayed has been recorded as information in the header 51 and therefore the decision of step S64 is rendered promptly by making reference to this information...these processing operations may be executed by a file extension...If it is determined at step S64 that this window has a three-

dimensional image file...the display driver 6 is controlled to present the three-dimensional display...on the basis of the three-dimensional image data obtained from the three-dimensional image data 52, the screen controller 9 controls the image painting unit 7 and the checkered mask-pattern painting unit 8 and causes a three-dimensional display to be presented at the position of the window of the stereoscopic display 12."). The motivation to combine the teachings of swift with Osaka is equivalent to the motivation of claim 6.

Regarding claim 16, Swift teaches an image data reproduction apparatus in column 5 lines 21-23, and as shown in Figure 2 as element 102. Swift also teaches reception means for receiving a multimedia information file including three-dimensional image display control information in column 3 lines 24-26 and 47-50 ("...a single media file format that is converted to various display formats...the format of the original left and right is known, as designated by the tag within the Stereoscopic 3D Media file...") obtained by encoding a parameter for displaying three-dimensional image data and said three-dimensional image data, or two-dimensional image data in column 4 lines 6-11 ("The encoding processes used include independent compression of the Left and Right images. Independent compression of Left and Right provides better quality display output...methods include a video setup format for compression..."). However, Swift fails to teach file type determination. Osaka teaches a file type determination means for analyzing an extension of said multimedia information file where the file type determination means determines whether said multimedia information file includes said three-dimensional image data or determines on which three dimensional display scheme data is based on, based on said extension in column 17 lines 23-41 ("...it is determined,

based upon the information in the file header 51, whether this window has three-dimensional image data. In this example, whether or not a three-dimensional image is to be displayed has been recorded as information in the header 51 and therefore the decision of step S64 is rendered promptly by making reference to this information...these processing operations may be executed by a file extension...If it is determined at step S64 that this window has a three-dimensional image file...the display driver 6 is controlled to present the three-dimensional display...on the basis of the three-dimensional image data obtained from the three-dimensional image data 52, the screen controller 9 controls the image painting unit 7 and the checkered mask-pattern painting unit 8 and causes a three-dimensional display to be presented at the position of the window of the stereoscopic display 12."). It would have been obvious to one of ordinary skill in the art to combine the teachings of Swift with Osaka because this combination would provide the ability to display stereoscopic images stored in a particular display format on any display device, as taught by Swift, in which the display control processing is reduced through the indication of the presence of three-dimensional data within the file, as taught by Osaka, thereby quickly identifying and distinguishing whether two or three-dimensional display control is required during display.

Claims 4, 13, 17 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Swift in view of Connell (US Patent 5,581,625), in further view of Harman (US Patent 6,496,598), and in further view of Osaka.

Regarding claims 4, 13, 17 and 21, Swift teaches three-dimensional image display control information in Figure 1 element 10, including information indicating a number of

viewpoints of the three-dimensional image data and information indicating form which viewpoint position the three-dimensional image data is obtained in column 9 lines 53-62 ("One embodiment stores a series of 3D stereoscopic images of an object into one file. FIG. 16 illustrates one way to store a series of N images into a single resource file. The first image 1600 is at the top of the file and the rest of the images follow sequentially until the last file 1602...the point of view of the camera is swung around the object to generate all of the intermediate images."), as shown in Figure 17. Swift also teaches information indicating arrangement of a camera that has picked up three-dimensional data in column 10 lines 52-65 and is shown in Figure 19. Swift also teaches indicating a maximum shift amount when a parallax image of three-dimensional data is shifted in column 8 lines 51-63 ("...automatically (or manually if desired) adjusts with overall left and right image shift to compensate for image magnification. When a 3D stereoscopic image is enlarged...there is a potential of creating large separations between objects in the 3D stereoscopic image that can lead to eyestrain for the viewer. The present invention stores important parameters about the 3D stereoscopic image like width, height, target screen size, etc. When the 3D stereoscopic image is to be displayed on a display that is larger or smaller than the target screen size, then the 3D stereoscopic image is adjusted accordingly to minimize eye fatigue for the user."), where it is described that the shift of the image is performed until it reaches a position in which if shifted further, the three-dimensional depth would not be preserved. Swift fails to teach the remaining limitations. Connell teaches a direction of sub-sampling three-dimensional data in column 7 lines 18-25 ("The combined stereo video signal is then fed to computer 52, which digitizes same, separates the left and right images and subsamples each to obtain

two compressed 100 by 65 pixel images (100 pixels across and 65 up and down). Prior to subsampling or compression, the combined image is 512 by 512 pixels (each half image is 512 pixels across and 256 up and down). Compression extracts, for example, every fifth pixel across and up and down..."). However, Swift and Connell fail to teach indicating whether a border is to be display around and image, and an identification of three-dimensional data within a multimedia information file. Harman teaches indicating whether a border is to be displayed around an image of said three-dimensional image data in column 6 lines 45-51 ("The processes would then work in either real-time or non real-time in order to create the 3D images. This can be further optimised through the use of borders...The 3D images may then be stored or transmitted to a 3D display, including shutterglasses, polarising glasses or an autostereoscopic display."), and indicating border image data to be displayed around the image of said three-dimensional image data in column 14 lines 4-20 ("The present invention therefore preferably also defines a common border or reference point within a viewed image...This has the advantage of enhancing the stereoscopic effect in many scenes. This reference point can be a simple video border or...i) A simple coloured video border around the perimeter of the image. ii) A complex coloured video border consisting of two or more concentric borders..."). Swift, Connell and Harman fail to teach identification of three-dimensional data within a multimedia information file. Osaka teaches identification of three-dimensional data within a multimedia information file in column 17 lines 23-26 ("...it is determined, based upon the information in the file header 51, whether this window has three-dimensional image data..."). It would have been obvious to one of ordinary skill in the art to combine the teachings of Swift in view of Connell, in further view of Harman, and in further view of

Osaka because this combination would provide an accurate display of stereoscopic image data that has been analyzed to determine the three-dimensional data to be displayed, in which adjustment through shifting and modifications to the image data using borders based on the determined display information enables preservation of the stereoscopic effect.

Claims 10, 18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift in view of Tanaka.

Regarding claims 10, 18 and 25, Swift teaches an image data generation apparatus generating a multimedia information file including both of image pick-up condition information indicating an image pick-up condition for a three-dimensional image in column 9 lines 53-62 and in column 10 lines 52-65, and the file also contains three-dimensional image data, as described in column 2 lines 29-31. However, Swift fails to teach image pick-up information including information indicating a number of parallaxes in a horizontal direction and perpendicular thereto. Tanaka teaches image pick-up information indicating a number of parallaxes, or viewpoints, in a horizontal direction and a direction perpendicular thereto, which is therefore in a vertical direction, in column 4 lines 26-31 and 45-47. It would have been obvious to one of ordinary skill in the art to combine the teachings of Swift with Tanaka because this combination would provide accurate display of stereoscopic images through the analysis of the placement of several viewpoints required to display three-dimensional images correctly thereby preserving the depth and reducing visual discomfort experienced while viewing the images.

Claims 11, 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift in view of Uomori et al.(herein "Uomori", US Patent 6,005,607).

Regarding claims 11, 19 and 26, Swift teaches an image data generation apparatus generating a multimedia information file including both of image pick-up condition information indicating an image pick-up condition for a three-dimensional image in column 9 lines 53-62 and in column 10 lines 52-65, and the file also contains three-dimensional image data, as described in column 2 lines 29-31. Swift also teaches indicating a camera arrangement shape indicating an interval between adjacent cameras in column 10 lines 52-65 and is shown in Figure 19. However, Swift fails to teach information indicating a distance from a camera arrangement plane to a convergence point. Uomori teaches information indicating a distance from a camera arrangement plane to a convergence point, which is comprised in camera parameter information, in column 5 lines 24-31 ("...the fusional range verification section 11 calculates...the camera parameters...distance dx from camera converging point to imaginary camera position V..."), and is shown in Figure 2 as dx. It would have been obvious to one of ordinary skill in the art to combine the teachings of Swift with Tanaka because this combination would provide visually appealing stereoscopic images through accurate adjustment of the parallax and viewpoints of the image acquisition devices with respect to calculated distances from the device to a convergence point.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Said Broome whose telephone number is (571)272-2931. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Broome SB
12/13/06

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER